

### **Remarks**

Each rejection raised by the Examiner is addressed separately below. In view of the claim amendments noted above and the remarks below, Applicants respectfully request reconsideration of the merits of this patent application.

#### *IN THE CLAIMS*

Claims 4, 16, 17, 19 and 21-24 remain in the case. Claims 4 and 17 have been amended. Claims 5-16 and 20 have been cancelled. Support for the amendments can be found in the specification as filed. No new matter has been added.

Favorable reconsideration and allowance of this application is respectfully requested.

#### *§112 REJECTIONS-INDEFINITENESS*

Claims 4, 16, 17, 19 and 21-24 have been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Specifically, the Examiner contends that claims 4 and 17, step (b), include the phrase "required for sterol and unsaturated fatty acid synthesis" which is indefinite. Without agreeing to the Examiner's characterization of the claims, and solely to move this case to allowance, Applicants have amended claims 4 and 17, step (b) to remove this phrase. Accordingly, Applicants submit this rejection has been overcome, and request that the rejection be withdrawn.

Claim 17, step (e) has also been rejected as being indefinite regarding the phrase "monitoring the wort for end of fermentation." The Examiner alleges that it is unclear what is encompassed by "the end of fermentation." Applicants disagree. As set forth in the application as filed (see page 1, lines 19-24 to page 2, lines 1-2), fermentation is monitored by measuring the specific gravity of the solution. The specific gravity declines over the course of fermentation as the amount of fermentable carbohydrates decreases and the amount of ethanol increases. The exact specific gravity which indicates that fermentation has ended depends on the type of beer being brewed, and is well known to the ordinary brewer in the art. Accordingly, Applicants submit this rejection has been overcome, and request that the rejection be withdrawn.

*REJECTIONS UNDER 35 USC §103*

The Examiner has maintained the rejection of claims 4, 16, 17, 19 and 21-24 as being obvious over GB 2197341 to Quain (Quain) in view of the Handbook of Brewing and in further view of applicants' own admission on pages 1-4 of the application as filed. Claim 16 has been cancelled, thereby rendering that portion of the rejection moot.

Regarding claims 4 and 17, the Examiner states that Quain teaches a method of brewing beer by suspending yeast in a wort-free aqueous solution. Applicants submit that this rejection has been overcome by the appropriate amendments to the claims. Specifically, claims 4 and 17, step (b), have been amended to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast wherein the gas is delivered above a maximum oxygen uptake rate of the yeast." This is clearly not taught by either Quain or the Handbook of Brewing, nor would one of skill in the art be motivated to modify Quain or the Handbook of Brewing in this manner.

Because nothing in Quain or the Handbook of Brewing teaches or suggests one of skill in the art to "aerate the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast wherein the gas is delivered above a maximum oxygen uptake rate of the yeast", Applicants submit that neither Quain nor the Handbook of Brewing can be used to render the subject matter of the pending claims obvious.

The Examiner concedes that Quain does not teach or suggest using the specific gravity for aeration and pitching recited in claims 4 and 17. However, the Examiner goes on to allege that it would have been obvious to use the method of Quain with the specific gravity values taught for pitching in the Handbook of Brewing. However, Applicants submit that Examiner has provided no indication as to why one of skill in the art would be motivated to combine the specific gravities taught in the Handbook of Brewing with the methods of Quain. Further, even if one of skill did make such a combination, neither Quain nor the Handbook of Brewing provide any teaching, suggestion or motivation to modify the combined teachings to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast wherein the gas is delivered above a maximum oxygen uptake rate of the yeast."

The Examiner further concedes that Quain is silent regarding the addition of cereal sugars to the yeast suspension as cited in claims 4 and 17. Again, the Examiner alleges that the Handbook of

Brewing teaches the carbohydrate requirement of sugars like sucrose, maltose and maltotriose. Therefore, the Examiner alleges that it would have been obvious to add maltose and maltotriose to the aqueous suspension for aerating yeast. However, Applicants submit that Examiner has provided no indication as to why one of skill in the art would be motivated to combine the carbohydrate requirements taught in the Handbook of Brewing with the methods of Quain. Further, even if one of skill did make such a combination, neither Quain nor the Handbook of Brewing provide any teaching, suggestion or motivation to modify the combined teachings to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast wherein the gas is delivered above a maximum oxygen uptake rate of the yeast." Therefore, Applicants respectfully submit that claims 4 and 17 are not obvious over Quain, even in view of the Handbook of Brewing.

Regarding claims 21-24, the Examiner cites Quain as teaching suspending yeast in an aqueous medium to oxygenate. The Examiner concedes that Quain is silent regarding the use of maltose and maltotriose. The Examiner goes on to state that the Handbook of Brewing teaches the carbohydrate requirement of sugars like sucrose, maltose and maltotriose. Therefore, the Examiner alleges that it would have been obvious to add maltose and maltotriose to the aqueous suspension for aerating yeast. However, claims 21 and 22 depend from claim 17, and claims 23 and 24 depend from claim 4, both of which, as discussed above, clearly recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast wherein the gas is delivered above a maximum oxygen uptake rate of the yeast." Quain does not teach or suggest this. Therefore, Applicants respectfully submit that claims 21-24 are not obvious in view of Quain, even in combination with the teachings of the Handbook of Brewing.

#### *SUMMARY*

Having addressed each issue raised by the Examiner, claims 4, 17 and 21-24 as amended are believed to be in condition for allowance and a Notice of Allowance is respectfully requested. Should any issues remain outstanding, the Examiner is invited to contact the undersigned at the telephone number appearing below if such would advance the prosecution of this application.

A Petition for Three-Month Extension of Time is included herewith. However, if any additional extension of time is required in this or any subsequent response, please consider this to be

a petition for the appropriate extension and a request to charge the petition fee to Deposit Account No. 17-0055. No other fee is believed to be due in connection with this response. However, if any fee is due in this or any subsequent response, please charge the fee to the same Deposit Account No. 17-0055.

Respectfully submitted,

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